

"G20能效引领计划"下 节能市场化机制发展机遇

The Energy Conservation Market Mechanism Development Opportunities Under the "G20 EELP"

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EELP产生的背景 Context of EELP

- * 2015年12月 巴黎协定确定了碳减排目标
- * The Paris Agreement adopted in December 2015 through the COP21 meeting of the United Nations Framework Convention for Climate Change, set an overall target for carbon emission reductions and provides a framework to reduce energy-related emissions
- * 提高能效是应对气候变化,实现可持续发展的重要手段
- * Improving energy efficiency is a key priority in fighting against climate change and ensuring sustainable development and has been recognised as an important development goal globally.
- * G20成员国的能耗占世界初次能源消耗的的80%,应当引领能效提高
- * Given covering more than 80% of the world's primary energy consumption, G20 should play a leading role in Improving energy efficiency.

EELP产生的背景 Context of EELP

- * 2014 澳大利亚 能效行动计划 (EEAP)
- * Since its adoption in 2014, the "G20 Energy Efficiency Action Plan" has led to significant developments in energy efficiency collaboration. G20 members agreed to develop a long-term framework for energy efficiency collaboration within the G20 known as the G20 Energy Efficiency Leading Programme (EELP).
- * 六个能效合作领域:交通工具(特别是重型车辆)、互联设备、能效融资、建筑节能、工业生产过程(工业能源管理)、 发电
- * Six key areas of collabration: Vehicles, Networked Devices, Finance, Buildings, Industrial processes (Industrial energy management), and Electricity Generation

G20 首 脑 峰 会 公 报 的 内 察 G20 Leaders' Communique Hangzhou Summit

23. 根据《二十国集团能源合作原则》,我们重申致力于构建运转良好、开放、竞争、高效、稳定和透明的能源市场,建设能更好地反映世界能源版图变化、更有效、更包容的全球能源治理架构,……我们鼓励各成员在自身需要和国情基础上显著提高能效,以及调整生活方式以促进节约能源。我们将探索创新合作安排,推动国际能效合作。我们核准二十国集团能源部长发布的能源可及性自愿合作行动计划、可再生能源自愿行动计划和能效引领计划,要求他们定期会晤以跟踪上述计划的落实情况。

In line with the G20 Principles on Energy Collaboration, We encourage members to significantly improve energy efficiency based on the <u>specific needs</u> and <u>national circumstances of each member</u> and promote energy conservation through appropriate <u>lifestyle changes</u>. We will explore innovative collaborative arrangements for <u>international cooperation on</u> energy efficiency. We <u>endorse</u> the G20 Voluntary Collaboration Action Plan on Energy Access, the G20 Voluntary Action Plan on Renewable Energy and <u>the G20 Energy Efficiency</u> <u>Leading Programme</u> issued by the <u>G20 energy ministers</u> and <u>ask them to meet regularly to follow up on the implementation</u> of these plans.

G20 首 脑 峰 会 公 报 的 内 容 G20 Leaders' Communique Hangzhou Summit

- 24. 我们重申能源合作对构建更清洁的能源未来和确保可持续能源安全、从而推动经济增长具有重要作用。我们欢迎在6个能效关键领域自愿开展的国际合作取得的进展,其中包括重型卡车及改善其能效,同时考虑《二十国集团能效引领计划》中的有关政策措施并确保符合各国国情。......
- 24. We reaffirm the importance of energy collaboration towards a cleaner energy future and sustainable energy security with a view to fostering economic growth. We welcome the progress on the voluntary international collaboration on energy efficiency in six key areas, taking into consideration the policies outlined in the Energy Efficiency Leading Programme and in line with national circumstances, including in heavy duty vehicles, and improving the efficiency of these vehicles.

能源部长会地京宣言的内容 G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

- * 我们认识到提高能效和节能是G20的长期优先工作。提高能效 具有社会、经济、环境和其他效益,对打造可持续的未来具 有关键作用。
- * We recognize that energy efficiency, including energy conservation, is a long-term priority for G20. Improving energy efficiency brings social, economic, environmental and other benefits, and plays a key role in shaping a sustainable future.

能源部长会北京宣言的内容

G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

- * 我们采纳《G20能效引领计划》(EELP),同意在提升能效中发挥引领作用。我们同意在自愿前提下,秉承"互利、创新、包容、共享"的精神,开展能效合作行动。我们承诺大幅提高G20能效水平,加强能效合作,鼓励G20成员国根据各自需要和国情开发主动的能效计划、政策及措施。。
- * We adopt the G20 Energy Efficiency Leading Programme (EELP), and agree to take the lead in promoting energy efficiency. We agree to take action by adhering to the Voluntary Pillars for Energy Efficiency Cooperation, which are "mutually beneficial, innovative, inclusive, and sharing". We commit to significantly improve energy efficiency in the G20, through greater energy efficiency cooperation and by encouraging G20 members to develop active energy efficiency programs, policies and measures based on the specific needs and national circumstances of each member.

能源部长会北京宣言的内容

G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

- * 为增强能效的全球声音,G20成员国支持国际能效伙伴关系(IPEEC)和国际能源署(IEA)与其他国际机构,包括石油输出国组织(OPEC)、经合组织(OECD)、亚太经合组织(APEC)、金砖国家(BRICS)、"人人享有可持续能源"倡议(SE4AII)和哥本哈根能效中心(C2E2),及其他利益相关方共同发挥作用,同时我们将探索创新国际能效合作机制的可行性。
- In order to strengthen the global voice for energy efficiency, G20 members support IPEEC working with the IEA and other international organizations, including IEF, OPEC, OECD, APEC, BRICS, SE4All and C2E2, and with stakeholders, and we will explore the feasibility of innovative collaborative arrangements for international cooperation on energy efficiency.

能源部长会地京宣言的内容 G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

- * 我们欢迎在IPEEC协调下交通工具(特别是重型车辆)、互联设备、能效融资、建筑节能、工业生产过程(工业能源管理) 发电等六个重点领域能效自愿国际合作取得的显著进展。我们意识到在重型车辆、提升能效投资及其他工作领域存在更多自愿合作机遇。
- * We welcome the significant progress in voluntary international collaboration coordinated by IPEEC in the six key areas of Vehicles, particularly heavy-duty vehicles, Networked Devices, Finance, Buildings, Industrial processes (Industrial energy management), and Electricity Generation. We recognize the particular opportunity provided by voluntary collaboration on heavy-duty vehicles, as well as upscaling of energy efficiency investment and other workstreams.

能源部长会北京宣言的内容

G20 ENERGY MINISTERIAL MEETING BEIJING COMMUNIQUÉ

- * 我们鼓励感兴趣的国家继续深化这些领域的合作,并积极参加EELP中新扩展的最佳节能技术和最佳节能实践("双十佳")、超高能效设备和电器应用倡议("SEAD")、区域能源系统("DES")、能效知识分享框架、终端用能数据和能效度量等关键领域工作。
- * 我们欢迎非G20国家积极参与各领域能效合作。
- * We encourage interested countries to strengthen this collaboration and to participate actively in the additional key areas outlined in the *EELP*, which are Best Available Technologies and Practices ('TOP TENs'), Super-efficient Equipment and Appliances Deployment initiative ('SEAD'), District Energy Systems ('DES'), Energy Efficiency Knowledge Sharing Framework, and Energy End-Use-Data and Energy Efficiency Metrics.
- We welcome the active participation of non-G20 countries in all key areas of energy efficiency collaboration.

* 执行摘要 Executive Summary

- * 1. G20 有志于引领全球能效提高
 - G20 as a Leading Force in Improving Energy Efficiency in the World
- * 1.1 提高能效对全球可持续发展具有多重效益 The multiple benefits of energy efficiency for advancing global sustainable development
- * 1.2 G20 在引领全球能效提高方面大有可为 The G20 is capable of taking the lead in improving global energy efficiency
- * 1.3 为进一步加强国际能效合作提出了新期待 Further strengthening the outlook for international collaboration on energy efficiency

- * 2.自愿基础上的 G20 能效合作原则 G20 Voluntary Pillars for Energy Efficiency Cooperation
- * 我们鼓励 G20 成员国进一步加强双边和多边能效合作,同时鼓励 G20 成员国之间以及与非 G20 成员国家分享能效提升的先进经验,在长期能效提升中发挥引领作用。
- * G20 members are encouraged to strengthen bilateral and multilateral cooperation on energy efficiency, as well as to share experiences on energy efficiency improvements with G20 members and non-G20 members, in order to play a leading role in improving energy efficiency in the long-term.

这是首次明确了G20的能效合作原则(四大原则)

*1) 互利:依托积累的丰富实践经验, G20成员加强以互利共赢为基础的双 边和多边能效合作

Mutual beneficial: Enable mutual benefits through bilateral and multilateral cooperation between G20 members by utilising members' wealth of experiences.

*2)创新:鼓励和支持创新性节能技术和实践的研发、示范和推广,支持建立开放、有效的能效提升计划,鼓励技术转移

* Innovative: Encourage and support innovative energyefficient technologies and practices through research and development, demonstration and dissemination; as well as developing open and effective energy efficiency programmes that encourage energy technology transfer.

- *3)包容:鼓励不同经济发展阶段、不同自然资源禀赋、不同人口密度的国家因地制宜地开展能效提升行动,制定差异化的能效提升目标,以及与本国发展目标保持一致的合作方式;
- * Inclusive: Encourage countries at different stages of economic development, with different natural resource endowments and population densities, to implement energy efficiency improvements according to local conditions, and share developed corresponding energy efficiency aims and formulations of collaboration that are in accordance with their national development objectives.

*4) 共享: 鼓励和推动能效知识和信息的收集、传播与共享, 为 G20 成员开展能效提升行动提供技术支撑

* Sharing: Encourage and strengthen the collection, dissemination and analysis of knowledge and information for G20 members to carry out energy efficiency improvements and to provide technical support.

- * 3..G20 长期能效提升目标 G20 Long-Term Aim to Improve Energy Efficiency
- * G20 成员承诺通过加强 G20 能效合作和鼓励各成员国根据各 自情况采取更积极的能效计划、政策和措施,大幅提高 G20 能效水平。
- * G20 members commit to significantly improving energy efficiency in the G20 by improving energy efficiency cooperation and encouraging G20 members to develop active energy efficiency programmes, policies and measures based on each member's own social and economic context.
- * G20 成员同意将《G20 能效引领计划》 (EELP) 作为长期计划 加以执行,在未来能效持续提升中发挥引领作用。
- * G20 members agree to the EELP, as a long-term energy efficiency programme, and in doing so, take a leading role in achieving sustainable energy efficiency growth during future G20 presidencies.

- * 3..G20 长期能效提升目标 G20 Long-Term Aim to Improve Energy Efficiency
- * G20 成员将显著提高高效节能技术和设备普及率,同时根据 G20 成员各自的现实条件、能力和发展阶段,在尊重本国政策和优先目标的前提下,为提高能效投资加强能力建设、改善政策环境。
- * G20 members will work to significantly improve energy-efficient technologies and equipment coverage, as well as effectively work to enhance capacity building and the policy and regulatory environment for energy efficiency investments, taking into account different national realities, capabilities and levels of development within countries, and respecting national policies and priorities.
- * 鼓励G20 成员基于本国国情,制定自愿性的国家能效提升计划。
- * G20 members are encouraged to develop voluntary national energy efficiency programmes, in line with each member's respective circumstances.

- * 4.G20 能效合作的重点领域 Key areas of collaboration
- * 新增了5个重点领域(超高效电器、双十佳、区域能源系统、能效知识分享框架、 终端用能数据和能效度量)
- * The EELP adds five new key areas (Super-Efficient Appliances Deployment initiative, TOP TENs, District Energy Systems, Energy Efficiency Knowledge Sharing Framework, and Energy End-Use-Data and Energy Efficiency Metrics).
- * 基于各国工作重点和能力, G20 成员国和嘉宾 国可自愿选择参加感兴趣的重点领域。
- * G20 members and guest countries, based on their national priorities and capabilities, will select and voluntarily participate for as long as they consider appropriate in the key areas of work and Task Groups in which they are interested.
- * 每个重点合作领域的长期目标和实现途径主要用于说明未来发展方向,对参加的G20成员而言并不是强制性的。
- * The long-term perspectives and pathways outlined in each key area of collaboration are not mandatory for participating G20 members, but are only intended to reflect the general direction of activities which members can pursue.

自 2014年延续的6个能效合作项目 6 key areas since 2014

- 1) 交通工具 Vehicles (HDV)
- 2) 联网设备 Networked devices (NDTG)
- 3) 能效融资 Finance (EEFTG)
- 4) 建筑 Buildings (BEET)
- 5) 能源管理 Industrial Processes (Industrial Energy Management)
- 6) (高效低碳)发电 Electricity Generation (High-Efficiency Low Emissions HELE)

新增加的能效合作项目 NEW key areas

- 7) 超高能效设备 Super-efficient equipment and appliance deployment initiative (SEAD)
- 8) "双十佳"(最佳节能技术和最佳实践) Sharing Best Available Technologies (BATs) and Best Practices (BPs) (TOP TENs)
- 9) 区域能源系统 District Energy Systems (DES)
- 10)能效知识分享框架 Energy efficiency knowledge sharing framework
- 11):终端用能数据和能效度量 Energy end-usedata and energy efficiency metrics

- > 5.实施机制 <u>Implementation</u>
- ► G20 成员同意 IPEEC 作为落实 EELP 的关键协调机构,IPEEC 将与 IEA、IEF、OPEC、OECD、APEC、BRICS、SE4ALL、C2E2 等 国际组织紧密合作发挥核心作用
- ➤ G20 members agree that the International Partnership for Energy Efficiency Cooperation (IPEEC) will be the key coordinating agency for the EELP. In this capacity, IPEEC will fully cooperate with international organizations including IEA, IEF, OPEC, OECD, APEC, BRICS, SE4ALL and C2E2, and others.

- > 5.实施机制 Implementation
- > 我们将探索创新国际能效合作机制的可行性
- G20 members will explore the feasibility of innovative collaborative arrangements for international cooperation on energy efficiency

节能市场化机制发展机遇

The Energy Conservation Market Mechanism Development Opportunities Under the "G20 EELP"

- * 生产、生活模式的调整 appropriate lifestyle changes
- * 11个重要领域的能效国际合作11 Key areas of collaboration
 - * 项目目标和进展Objective and progress
 - * 牵头国、参与国、参与组织 <u>Leading Country, members, participates, including international organizations</u>
- *节能技术、节能实践、能效知识的分享
- * Sharing EE tech., EE best practices, EE knowledge
- * 能源管理体系 ISO50001
- * Energy Management System ISO50001

节能市场化机制发展机遇

The Energy Conservation Market Mechanism Development Opportunities Under the "G20 EELP"

- *产品的设计和研发 R&D of products
- * 制造业 Manufacturing Industry
- * 工程和建筑领域 Buildings and construction
- * 交通和车辆 Transportation and vehicle
- * 服务业 Service
 - * 商业模式创新 New business mode
 - * 绿色金融和节能融资 Green finance
 - * 专业节能服务机构 Professional EE Organization

谢谢聆听!

Thanks for listening!